

Working Paper

The Potential for Regional Transportation Impact Mitigation Fee Programs and Mitigation Banks to Help Streamline the Implementation of SB 743

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Background:

With the passage of Senate Bill (SB) 743 (Steinberg, 2013), California will be changing the primary metric it uses to assess transportation impacts under the California Environmental Quality Act (CEQA) from Level of Service to Vehicle Miles traveled (VMT). This change will ultimately result in the deployment of new analytic approaches toward determining the significance of potential impacts, as well as the use of new mitigation measures needed to address those impacts and the evolution of existing implementation programs required to carry those mitigations out.

This paper was provided as a part of the "SB 743 Implementation Assistance Project: From Driving More to Driving Less" a case-study analysis exploring the implementation of SB 743 managed by the Institute for Sustainable Solutions and Urban Sustainability Accelerator at Portland State University, which is investigating how VMT impacts from both land use developments and transportation capital projects could be adequately analyzed and successfully mitigated under SB 743 within a regional, programmatic framework. Work group members currently include the Sacramento Area Council of Governments, the Southern California Association of Governments, the Metropolitan Transportation Commission, the San Diego Association of Governments, the San Joaquin Council of Governments, the Governor's Office of Planning and Research, the California Department of Transportation, and the California State Transportation Agency.

The conceptual premise of this paper is that regional transportation impact mitigation fee programs and various "mitigation bank" models could be used to streamline VMT-related impact analysis and ensure successful implementation of associated mitigations in the future.

Below, the reader will find essential information such as important legal and technical considerations and common procedural and political challenges, as well as several relevant examples that may need to be considered by local, regional, and state agencies that are interested in helping successfully implement SB 743's changes to CEQA.

Additional papers on the various topics covered herein, and more comprehensive efforts to provide best practice methodologies on the potential for impact fees to address VMT impacts, are expected in the future. For the purpose of keeping this paper concise, discussions on many wide-ranging and complex topics are abbreviated and the following is assumed:

- The regulatory language submitted by the Governor’s Office of Planning and Research to the Natural Resources Agency for rule-making will identify VMT as the new impact metric for CEQA;
- Any technical guidance provided outside this regulatory language is advisory by nature and is intended to help implement the regulatory language;
- Each CEQA lead agency is ultimately responsible for deciding the approaches that they will use to carry out impact analysis, for determining the significance of potential impacts related to the land use and/or transportation projects that they approve, and for successfully implementing required mitigation strategies or issuing statements of overriding consideration related to their potentially significant and unavoidable impacts;
- As shown by the examples provided, regional transportation impact mitigation fee (RTIMF) programs and various mitigation bank models could possibly be adapted to help streamline VMT impact analysis and the implementation of required mitigation.

This paper is organized into the following sections: **A)** Legal and technical considerations; **B)** Common procedural and political challenges; **C)** Examples of fee programs that are relevant to the discussions herein; **D)** Examples of various “mitigation bank” models that could be explored further; **E)** Resources and references; **F)** Other key briefs, white papers, and publications on VMT.

Legal and Technical Considerations

A. Regional Transportation Impact Mitigation Fee Programs

If properly developed and administered, RTIMF programs could provide an effective and efficient implementation mechanism for mitigation measures needed to address cumulative VMT impacts. If successfully carried out, these programs could help streamline ad hoc environmental reviews and provide an umbrella framework to support a wide variety of the VMT-reducing mitigation strategies that have been identified through a variety of published research (see the references below). Specifically, the impact analysis outlined in these programs’ nexus plans, their capital/service improvements, and the fiduciary/delivery information presented in their annual reports and five-year updates provide the substantial evidence needed under CEQA to demonstrate that these mitigations can be successfully assured.

It is important that the relationship between VMT impacts and mitigations must be quantifiably demonstrated by technically defensible analysis in order to pass muster under both CEQA and the Mitigation Fee Act. Specifically, impact fee programs must be developed, implemented, and regularly updated as set forth in Sections 66000 et seq. of the California Government Code (Assembly Bill 1600, 1987) and subsequent case-law, commonly referred to as “Nolan and Dolan” among others. This legal framework requires that all public agencies must technically establish a reasonable and proportionate relationship, or “nexus”, between fees of general applicability and the new development upon which they are imposed. The summary below describes the essential nexus criteria established by law:

1. Identify the purpose of the fee;
2. Identify the use to which the fee will be put;

3. Determine the reasonable relationship between the fees' use and the type of development on which the fees are imposed;
4. Determine the reasonable relationship between the need for the public facilities and the types of development on which the fees are imposed, and;
5. Demonstrate a reasonable relationship between the amount of the fee and the cost of public facility or portion of the public facility attributable to the development on which the fee is imposed.

For the purpose of this paper, these nexus criteria are assumed to also apply to transportation capital projects. A nexus study documents the legally-required reasonable and proportionate relationship between the fees assessed and the impacts identified on the regional transportation system. Once adopted, lead agencies would apply their adopted fee schedules as they issue building permits for new development within their jurisdiction. The revenues collected would be deposited into a restricted account dedicated to funding various transportation improvements required to mitigate the cumulative impacts that are created as new homes and businesses are constructed over time. An annual report would be issued each year that identifies program revenues and expenditures in order to demonstrate that the fees collected are being spent consistent with the adopted nexus and the reasons for which they are being imposed.

There are several generally accepted methodologies used to calculate impact fees for new development. Typically, they include the following essential steps that would need to be adjusted to incorporate VMT:

Step 1: Develop projections of future development

Step 2: Determine needed improvements

Step 3: Estimate improvement/mitigation costs

Step 4: Subtract revenues reasonably available from non-RTIMF sources (i.e. in the RTP Financial Element)

Step 5: Determine the percentage of costs attributable to new development

Step 6: Assign future VMT to each type of new development (e.g. trip-generation rates, trip-length factors, etc.)

Step 7: Divide the future VMT from each type of new development by the cost of improvements used in the fee calculation

As noted in step 4, all RTIMF projects, should be Tier 1 projects in the RTP, meaning that they are part of the RTP's fiscally-constrained financing plan. This finance plan is based on reasonably available local, regional, state, and federal revenue sources and identifies the amounts, sources, and timing of revenues needed to complete projects that are partially funded by impact fees. This linkage to the adopted RTP/MTP-SCS demonstrates the substantial evidence needed to show that the required improvements would actually get funded and be carried out (See *Napa Citizens for Honest Government v. Board of Supervisors* (2001) 91 Cal.App.4th 342). Conversely, in cases where the fee program (in combination with other funding sources) does not fully fund required mitigation, then the mitigation cannot be assured. It is important to remember that CEQA does not require a time-specific schedule for completion of the mitigation; only that the only fees are linked to a specific set of improvements and that the information provided through annual reports demonstrates that projects for which the fee are collected are actually being implemented (See *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors*, supra, 87 Cal.App.4th 99).

B. Mitigation Banks

In addition to the impact fee program model that is widely used to mitigate impacts from land use developments, it is possible that the examples and models of “mitigation banks” discussed below could provide an avenue for mitigating VMT impacts of transportation projects under SB 743. For example, Caltrans and its local/regional partners who sponsor projects on the state highway system (SHS) regularly pay in-lieu fees to mitigate impacts to biological resources at off-site locations with comparable habitat values. These in-lieu fees are often paid to separate agencies or third parties such as a non-profit conservancies that ultimately carry out the biological mitigation activity as separate stand-alone projects. It is important to note that the technical and regulatory protocols regarding the nexus between biological impacts and mitigations is complex and wide-ranging. However, there are three essential parallels to the potential mitigation of VMT impacts in the future:

1. In-lieu fees could be used to fund a wide variety of VMT-reducing strategies needed to mitigate related impacts;
2. VMT-specific methodologies and protocols would be required to demonstrate the nexus between VMT impacts and mitigations to ensure the adequacy of mitigation under CEQA as revised by SB 743, and;
3. There would need to be a comparable mechanism in place to collect these funds and pass them through to a party that would carry out those strategies in order to demonstrate that their implementation is reasonably assured.

Given the significant amount of detail that could be discussed with regard to both of these models (i.e., impact fee programs and mitigation banks), the essential point for the purpose of this paper is that they could both be possibly adapted to addressing VMT impacts and used to offer an alternative to ad-hoc, project-specific fair share analysis and fee payment by creating a “tiering” system under Section 15152 of CEQA. Under tiering, projects that are within and subsequent to a plan, program, or master environmental impact report (EIR) can be environmentally cleared if they have already been examined at a sufficient level of detail and are adequately mitigated by conditions of approval or other programmatic means such as impact fee programs.

References and examples of fee programs are included at the end of this discussion. Future exploration of topics such as the following is anticipated:

- The quantification of VMT impacts associated with potential induced demand from capacity-expansion projects;
- Various techniques available to address the limitations of model sensitivity toward quantifying VMT reductions associated with various mitigation strategies;
- The VMT-related conversion factors used to establish “Equivalent Dwelling Units”, “Travel Demand Units”, or “Trip Demand Factors” between land use categories;

- The allocation of VMT-based trip-end/trip-length costs and the use of VMT-based adjustments to trip generation rates used in fee calculations (e.g. the incorporation of pass-by and internal-capture effects from mixed-use/infill and the mode-split associated with transit-oriented developments);
- The best approaches to distinguish the difference between direct impacts and cumulative impacts;
- The level of accuracy and detail required to successfully tier “subsequent projects” from plan-level EIRs;
- What are the best ways to establish the strategic partnerships, multi-party agreements, and detailed implementation programs needed to adequately ensure implementation of fair share mitigations;
- The basis and methods for determining significance under CEQA.

Common Procedural and Political Challenges

The nexus methodologies between impacts and improvements and the successful use of these fee programs as mitigation under CEQA as discussed above will likely continue to vary by region. As such, a likely challenge moving forward will be in the ability of regional governments explain what is required of them and then to work with their member agencies, relevant state agencies, and non-profit stakeholders to create linkages between VMT impact nexus, project and plan-level funding streams, and administrative/implementation pathways needed to carry out required mitigation. This will likely require them to extend their existing modeling capacities, strengthen their partnership networks, and amend their funding and/or administrative programs.

Another challenge might be encountered by jurisdictions with locally-administered fee programs, as many local programs are currently limited in scope to their jurisdictional boundaries, whereas VMT is typically regional and interregional in nature. These programs may need to be updated to adequately analyze and mitigate the full scope of the VMT associated with the development or improvements that they approve. This points to the importance of enhancing the linkage between local (city) and regional (county) fee programs and the broader analytic and implementation framework provided by RTPs/MTPs-SCSs, which transcend these kinds of jurisdictional constraints.

Regional agencies that successfully overcome these challenges could help their members comprehensively address VMT impacts across jurisdictional boundaries, reduce or eliminate the need for expensive project-specific cumulative conditions analyses, and offer more certainty for developers regarding the kinds and costs of appropriate mitigations needed to address cumulative VMT impacts.

This is why most of the State’s RTPs/MTP-SCSs contain some variation of the following policy language:

- *“Require that new development contribute its fair share of the costs of new transportation infrastructure and system improvements for all modes necessary for such new development, as allowed for by law.”*
- *“Review local developments for consistency with General Plan circulation elements and with the Regional Transportation Plan.”*

- *“Review local General Plans for consistency with the Regional Transportation Plan.”*

Agencies administering regional fee programs would also be wise to consider the need for on-going monitoring of any potential discrepancies between the forecasts based on their RTP’s/MTP-SCS’s blue print growth scenario, the actual building permits issued over time, and the affect any such inconsistencies might have on the need for system-level VMT mitigation. The differences identified would need to be addressed, possibly by pairing plan and nexus update cycles to adjust impact analysis, mitigation strategies, and fee amounts/funding allocations accordingly to remain in environmental compliance.

Similarly, for programs that are integrally linked with an RTP’s Financial Element and regional investment strategy as a part of its nexus methodology and fee calculations, the program’s policies and procedures would need to consider how to maintain consistency between its adopted fee schedule and finance plan and the fees actually imposed by its member jurisdictions in order to ensure that mitigations remain fully-funded and reasonable assured.

Given the regional and interregional nature of VMT (particularly in regions with significant jobs/housing imbalances or other trip generators/attractors such as regional service centers that result in extreme travel distances), it will also be important to consider how local jurisdictions will chose to assign the cost of VMT mitigation. This is particularly important for VMT that is experienced outside of their jurisdictional boundaries, but that is partially associated with the land use projects and transportation improvements identified in local general plan land use and circulation elements.

These observations point to the important role that RTPAs, MPOs, and Caltrans plan as conveners, champions, and advocates for the successful adoption of these programs.

Any additional questions from readers, as well as any comments or concerns on the topics discussed herein are welcome and may be sent to the facilitator of this case-study effort or the author of this paper at:

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Examples of Mitigation Fee Programs

The following section provides examples from publically available websites of existing impact fee programs that are administered by cities, counties, and RTPAs/MPOs and include either VMT factors in their nexus methodologies or fee calculations or VMT-reducing mitigation strategies, as well as examples of various “mitigation bank” models that could possibly be adapted to meet the needs of implementing SB 743. Also provided is a list of resources and references on the topics discussed above.

City

City/County of San Francisco

This is an example of a comprehensive municipal effort to implement a broad array of transportation demand management (TDM) measures throughout its comprehensive planning, urban design, development review process, and impact analysis/mitigation process. This framework (which was adopted by ordinance, thereby amending the City’s planning code) includes three pillars that comprise the City’s Transportation Sustainability Program:

- *“Align”*; SF’s local CEQA reform, which created new thresholds and processes for analyzing VMT-related impacts and determining significance under CEQA.
- *“Shift”*; the City’s transportation demand management program, which is used for site-planning and development review purposes.
- *“Invest”*; its new Transportation Sustainability [impact] Fee program, which explicitly incorporates VMT impact assessment methodologies and funds VMT-reducing mobility services and investment strategies.

At the link below, readers will find portals to the City’s Transportation Sustainability Fee program documents and a wide array of TDM program studies and resources, a web-based tool designed to implement that program during development review, and a model community engagement process used to advance this effort to successful adoption. This is the most comprehensive and integrative VMT-reduction initiative the author found during research to develop this white paper and the best source of best-practice resources for practitioners that desire to move in this direction.

<http://sf-planning.org/shift-transportation-demand-management-tdm>

City of Oakland

This example demonstrates a city-level initiative intended to better align the City’s approach to transportation impact analysis with plans and policies that promote the implementation of SB 743 (i.e. the reduction of greenhouse gas emissions and the development of a diverse and multimodal transportation and land use network). At this link, readers will find a series of public presentations and staff reports describing their effort to modernize transportation impact review, as well as a summary of best practices, several examples of alternative impact analysis tools, new approaches to establishing local CEQA thresholds and determining significance as related to VMT impacts. Preceding this change, Oakland implemented a Transportation and Capital Improvement Impact Fee Ordinance.

<http://www2.oaklandnet.com/government/o/PBN/OurOrganization/PlanningZoning/OAK060501>

<http://www2.oaklandnet.com/government/o/PBN/OurOrganization/PlanningZoning/s/ImpactFee/index.htm>

City of Sacramento

This is an example of a city-wide TIMF program that is in the process of a comprehensive update to address the incremental evolution of fees that have resulted in a complex system that is cumbersome for developers and difficult for the City to manage. The program's draft Nexus Study and capital improvement program (CIP) contains both roadway capacity and operational improvements with complete street design features, dedicated bicycle and pedestrian facilities, and the extension of transit service, as well as the inclusion of VMT-related factors in the fee calculation methodology (i.e. trip-length and pass-by reductions to trip generation).

As required by AB 3005, the program's draft Nexus Study considers providing a fee reduction for development located within one-half mile of a Sacramento Regional Transit (RT) light rail station based on traffic analysis showing reduced vehicle travel rates for transit oriented developments. This draft program also includes a fee deferral program to assist residential, mixed use, and large non-residential infill development. It also includes an advance funding and reimbursement mechanism for future development. As this link, the reader will find this program's draft Nexus Plan, a proposed fee schedule, and public meeting outreach materials.

<https://www.cityofsacramento.org/Community-Development/Resources/Citywide-Development-Impact-Fee-Program>

City of Pasadena

This example demonstrates a multi-prong effort to move the city's local land use/transportation planning, development review process, and system investment strategies in a new direction that is reflective of both the City's vision for future growth management and SB 743's shift in metrics under CEQA. The City's local impact analysis guidelines incorporate both CEQA-related VMT impact analysis methodologies and non-CEQA LOS assessment procedures. The Nexus plan for the City's impact fee program (which is currently undergoing a public review and adoption process) incorporates a future development's fair share of future facility costs on a facility-by-facility basis, based on VMT-related impact analyses by Land Use category. The cost of future facilities, which include a wide array of transportation improvements including roads, public transit, bikeways, and pedestrian walkway facilities, are dependent on the relative benefit received by the development categories. At the following link, readers can find a variety of resources related to the City's non-profit Transportation Management Association, its Transportation Demand Management program, and local impact fee program:

<http://ww5.cityofpasadena.net/transportation/complete-streets/?target=development-review>

At the following link, readers can find a copy of the City's transportation impact analysis guidelines, which established new, VMT related thresholds and methodologies for determining significance under CEQA:

<http://ww5.cityofpasadena.net/transportation/wp-content/uploads/sites/6/2015/12/Current-Practice-and-Guidelines.pdf>

City of Los Angeles

(Coastal Transportation Corridor Specific Plan, West LA Transportation Improvement and Mitigation Specific Plan)

Recent amendments to these area-wide specific plans include an update to the list of transportation improvements to be funded, in part, by the impact fees collected from new development; an update to the

Transportation Impact Assessment fee program, including a VMT-based nexus plan, revisions to the fees, exemptions, in-lieu credits, and affordable housing credits; and a new transit-oriented development credit. The updated list of transportation improvements includes: transit, bicycle and pedestrian, roadway and intelligent transportation system, and trip reduction programs. Other proposed changes include administrative amendments and minor revisions that are consistent with SB 743, transportation policies in the City's General Plan elements, LADOT's Traffic Study Policies and Procedures, and current best planning practices. The Nexus Study for this program is included as Appendix B in its Draft EIR, which is available at the following site:

<http://planning.lacity.org/eir/CoastalTrans/deir/pdfs/tiafeestudy.pdf>

County

Sacramento County

This is an example of a county-wide TIMF program that reflect VMT thresholds and contains both roadway capacity and operational improvements, along with transit facilities, intelligent transportation systems, and bikeway/ pedestrian improvements, as well as the inclusion of VMT-related factors in the fee calculation methodology (i.e. trip-length and pass-by/internal-capture reductions to trip generation).

<http://www.sacdot.com/Documents/A%20to%20Z%20Folder/Development%20Fees/SCTDFMarch2010.pdf>

San Diego County

This is an example of a county-wide TIMF program that contains both roadway capacity and operational improvements, along with transit facilities, intelligent transportation systems, and bikeway/ pedestrian improvements, as well as the inclusion of VMT-related factors in the fee calculation methodology (i.e. trip-length and pass-by/internal-capture reductions to trip generation). As this link, the reader will find this program's adopting ordinance, Nexus Plan, annual report, and a variety of useful administrative tools, such as a fee calculator, an exemption form, and an appeals application.

<http://www.sandiegocounty.gov/dpw/land/tif.html>

RTPA/MPO/COG

Nevada County Transportation Commission

This is an example of a regional TIMF program that is exclusively based on LOS, includes only roadway projects, and is administered by a Regional Transportation Planning Agency, via Memorandum of Understanding (MOU), on behalf of its member agencies. At this link, readers will find a summary description of the program's most recent 5-year update, a Nexus Study, an Administrative Plan, and an Annual Report for FY 15/16

<http://www.nctc.ca.gov/Reports/Regional-Transportation-Mitigation-Fee-RTMF/index.html>

Amador County Transportation Commission

This is an example of a regional TIMF program that is based on LOS and safety, but includes roadway projects with multimodal components, and is administered by a Regional Transportation Planning Agency, via MOU, on behalf of its member agencies. At this link, readers will find a copy of the inter-agency MOU that governs the

program and the program's 2016 Nexus Study Update, as well as a variety of administrative supports such as administrative policies and procedures, local agency reporting forms, and an appeals process.

[http://actc-amador.org/wp-content/uploads/2016/10/2016.0121 MOU FINAL REVISED W.Signatures INCL EXHIBITS.pdf](http://actc-amador.org/wp-content/uploads/2016/10/2016.0121_MOU_FINAL_REVISED_W.Signatures_INCL_EXHIBITS.pdf)

South Placer Regional Transportation Authority

This is an example of a regional TIMF program that is administered by an independent Joint Powers Authority (JPA), which is staffed by the region's Regional Transportation Planning Agency (the Placer County Transportation Planning Agency) on behalf of its member agencies. The CIP within the Nexus plan is comprised of regional roadway projects with multimodal components and includes a dedicated line-item for transit projects.

[http://pctpa.net/sprta/library/SPRTA Traffic Impact Fees Memorandum %2012-05-14.pdf](http://pctpa.net/sprta/library/SPRTA_Traffic_Impact_Fees_Memorandum_%2012-05-14.pdf)

And here is a copy of the Bylaws incorporating this JPA:

<http://pctpa.net/sprta/library/SPRTA%20Bylaws.pdf>

Merced County Association of Governments

This is an example of a regional impact fee program that is administered by a Regional Transportation Planning Agency, via MOU, on behalf of its member agencies. The Nexus plan for this program is LOS based and its CIP is primarily comprised of traditional capacity-expansion projects, but also includes several urban arterial projects with complete-street design elements. The projected revenue from this program is explicitly identified in the Financial Element of the region's RTP (p.24 & p.28). Although no program documents are posted to their website, contact information can be found at: <http://www.mcagov.org/150/Regional-Transportation-Impact-Fee>

San Joaquin Council of Governments

This is an example of a county-wide, multi-jurisdiction capital improvement funding program that is administered by a Regional Transportation Planning Agency, via MOU, on behalf of its member agencies. At this link, readers will find a copy of the program's operating agreements, Nexus Plan, project list, Regional Congestion Management Program, and most recent Annual Report. The CIP within the Nexus Plan is comprised of regional roadway projects with multimodal components and includes several dedicated line-items for bus and rail related transit projects.

<http://www.sjcog.org/index.aspx?nid=118>

Transportation Agency for Monterey County

This is an example of a county-wide TIMF program that is based on LOS and contains mostly traditional roadway capacity and operational improvements, along with several regional roadway projects that contain complete-street design elements. Although this program's deficiency analysis is LOS based, VMT-related factors are included in the fee calculation methodology (i.e. trip-length and pass-by/internal-capture reductions to trip generation). As this link, the reader will find this program's Nexus Plan, a fee calculation worksheet, implementation guidelines, and a map of regional fee infill areas.

<http://www.tamcmonterey.org/programs/dev-impact-fees/>

Western Riverside County Transportation Commission

This is an example of a regional TIMF program that is administered by an independent JPA, which is NOT the region's Regional Transportation Planning Agency. The CIP within the Nexus plan is comprised of regional roadway projects with complete-street design elements and includes dedicated line-items for transit projects. VMT factors have been incorporated in this program's fee calculations.

<http://www.wrcog.cog.ca.us/tumf/resources>

Examples of “Mitigation Banks”

The various “mitigation bank” models below (i.e. Regional Biological Mitigation Frameworks, Natural Communities Conservation Plans, and Regional Advance Mitigation Programs) may provide a potential model for regional VMT mitigation, primarily through their framework of linking project-specific impacts with the implementation of regional programmatic mitigation strategies. Although there are several technical, procedural, and legal differences between each of these models that warrant further discussion with subject area experts; generally, such programs allocate funds to acquire various lands with sensitive-species habitat values and fund various habitat restoration projects in exchange for streamlined project permit approvals for a variety of capital improvement projects. Typically, acquired properties are permanently preserved as open space to maintain their various biological conservation values and related restoration projects are carried out to restore various natural native habitats such as riparian rehabilitation efforts and the removal of invasive plant species.

These models typically include a process through which the impacts from various transportation projects are estimated either before or during the planning or environmental clearance phases. They reflect an effort to achieve economies of scale and create a more comprehensive and integrative approach to mitigation that might be able to satisfy the mitigation needs of multiple projects at once or sequentially over time.

It is important to note that, each of these different models and the specific programs below vary greatly in detail, include different “covered activities” (i.e. mitigations), and include either known or unknown project-specific impacts at the time they are established. However, from a CEQA perspective, the primary considerations that would likely translate between the biological resource and VMT arenas are; 1) the requirement to quantify and demonstrate parity between project-level impacts and program-level mitigation, and; 2) the assurance needed to demonstrate that the mitigations will actually be carried out.

These two factors would need to be demonstrated by any potential adaptation and application of these models to VMT in future in order to provide the “substantial evidence” needed under CEQA to claim credit for adequate mitigation and successfully tier project-specific impact analysis and associated mitigation off of an implementation program such as these.

In theory, if successfully adapted to address the VMT impacts associated the “induced demand” created by major capacity-expansion projects (to the degree that it is demonstrated by the analysis), these models could possibly allow for project sponsors to simply pay an “in-lieu” fee at the completion of the Project Approval/ Environmental Document phase toward a pooled, revolving fund (i.e. “mitigation bank”) that could support an array of regional VMT-reducing mitigation strategies that would off-set the project’s induced VMT impacts. In addition to possibly being funded as project-specific line-item costs as described above, these programs can also be established through independent local-measure initiatives, or as a component of a larger self-help transportation measures.

A more thorough study of the examples below, with findings and lessons-learned for the potential future adaptation and implementation of these models, entitled Setting the Stage for Statewide Advance Mitigation, was performed by the Institute of Transportation Studies at UC Davis and can be found here:

<https://merritt.cdlib.org/d/ark:%252F13030%252Fm5rz1ftc/1/producer%252F907322100.pdf>

County Funded Multi-Project Advance Mitigation Efforts

- Coachella Valley Multiple Species Habitat Conservation Plan
<http://www.cvmshcp.org/>
- Western Riverside County Multiple Species Habitat Conservation Plan
<http://wrc-rca.org/>
- Orange County Transportation Authority's Environmental Mitigation Program
[http://octa.net/Projects-and-Programs/Measure-M/Measure-M2-\(2011-2041\)/Freeway-Mitigation/Environmental-Mitigation-Program-Overview/](http://octa.net/Projects-and-Programs/Measure-M/Measure-M2-(2011-2041)/Freeway-Mitigation/Environmental-Mitigation-Program-Overview/)
- San Diego Association of Governments' Environmental Mitigation Program
<http://www.sandag.org/index.asp?projectid=263&fuseaction=projects.detail>

Caltrans Led/Funded Advance Mitigation Efforts

- Beach Lake Mitigation Bank
http://us.speciesbanking.com/pages/dynamic/banks.page.php?page_id=7180
- Elkhorn Slough Early Mitigation Partnership
<http://elkhornslough.ucdavis.edu/>
- California State Route 149, Butte County
<http://www.bcag.org/projects/sr-149-freshwater-marsh/index.html>
- Cottonwood Conservation Area
<http://www.buttecountyrca.org/>

Advance Mitigation Planning Efforts – Unattached to Projects or Funds

- Santa Cruz Conservation Blueprint
<http://www.landtrustsantacruz.org/blueprint/>

A more comprehensive list of conservation and mitigation banks in California that have been approved by the California Department of Fish and Wildlife can be found here:

<https://www.wildlife.ca.gov/Conservation/Planning/Banking/Approved-Banks>

Resources and References

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3. Curtin's California Land Use and Planning Law; 2012, (Thirty-Second) Edition; C. Talbert-Barclay and M. Gray; Solano Press Book, PO Box 773 Point Arena, CA 95468.
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<http://sgc.ca.gov/resource%20files/State-LevelVMTStrategies.pdf>
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<http://www.dot.ca.gov/hq/tpp/documents/RevisedInterimGuidance11092016.pdf>
6. Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA: Implementing Senate Bill 743 (Steinberg, 2013); January, 2016; California Governor's Office of Planning & Research; 1400 10th St # 100, Sacramento, CA 95814.
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7. The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target; JANUARY, 2017 California Air Resources Board.
https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf
8. Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures; August, 2010; California Air Pollution Control Officers Association; 1107 9th Street, Suite 1005, Sacramento, CA 95814.
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<http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak060593.pdf>
10. Use of Impact Fee Programs for CEQA Mitigation; August, 2015; R. Milam, Fehr & Peers; 1013 Galleria Blvd., Suite 255; Roseville, CA 95678
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Other Key Briefs, White Papers, and Publications on Vehicle Miles Traveled

1. [Increasing Highway Capacity Unlikely to Relieve Traffic Congestion](#)
2. [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions Policy Brief](#)
3. [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions Technical Background Document](#)
4. [Increasing Walking, Cycling, and Transit: Improving Californians' Health, Saving Costs, and Reducing Greenhouse Gases](#)
5. [Growing Cooler: The Evidence on Urban Development and Climate Change](#)
6. [Moving Cooler: An Analysis of Transportation strategies for reducing greenhouse gas emissions \(Executive Summary\)](#)
7. [Growing Wealthier: Smart Growth, Climate Change, and Prosperity](#)